

choice selection at the Gallery of the Royal Society of Painters in Water Colours, 5a Pall Mall East, this latter being the fifteenth annual exhibition of the Photographic Salon. In neither case is the method of production stated, so that it is not possible to know how much is pure photography nor whether any given example is likely to be reasonably permanent. It is, however, a noteworthy fact that, besides the platinum and carbon processes in their numerous variations, this year there are many "oil prints," that is, prints in which the image is produced in pigments prepared in oil, by the process introduced by Mr. G. C. H. Rawlins a year or two ago. It is satisfactory to note that as these processes that yield results of undoubted trustworthiness increase in number, there is a tendency for them to oust those that are less desirable.

C. J.

INTERNATIONAL SEISMOLOGICAL CONGRESS.

THE second conference of the International Seismological Association will be held at the Hague on September 21-25. The first two days will be occupied by the permanent commission, which will discuss the financial reports from the secretary and the director, election of officers, and other matters relating to general administration. The meetings of the general assembly will take place on September 24 and 25. Amongst matters of immediate seismological interest to be discussed we notice the question of establishing a station at Kashgar, seismological bibliography, the annual publication of a catalogue of earthquakes for the entire world, and the geographical distribution of sound phenomena which have had hypogenic origin. Other scientific questions which will receive consideration relate to the rapid publication of data relating to large earthquakes, the reduction of seismic elements to absolute values, and the reproduction of seismograms. Discourses and conferences relate to a catalogue of microseisms for the year 1904, and the earthquakes in that year which have been recorded throughout the world, together with the analysis of seismograms, the publication of seismograms obtained on August 16 and 17, 1906, and the new work now in progress at Strassburg Observatory. To carry out the above programme evidently means a full four days' continuous work.

From what we read in daily papers and magazines, it is clear that much haziness exists in the public mind as to how earthquakes came to have an international importance. The first successful attempt to treat earthquake phenomena in a scientific manner was undoubtedly due to the late Robert Mallett. Strange as it may sound, his work practically remained in abeyance until Japan, desiring to acquire some of the material civilisation of the west, invited to her shores people from all quarters of the globe. Although none of these was asked to give instruction relating to earthquake phenomena, none of them could refrain from giving serious attention to movements which were frequently, and we may even say rudely, brought to their notice. In 1880 a seismological society was established. The first important work accomplished by this society was to devise instruments which would measure earthquakes, the result of which was that constructors for the first time learned that earthquake forces could be expressed in definite mechanical units. This led to new types of structures, and these experience has shown will stand severe shakings whilst ordinary European structures seriously suffer. This issue of seismological investigation, inasmuch as it bears upon the safety of life and property, indicates that the study of earthquake phenomena is of more

practical importance than is generally supposed. Among other outcomes of the study we may mention the determination of suboceanic sites where it would be fatal to lay a cable, the indication where certain cables have failed, and the collection of materials which enable those who insure to adjust rates to risks.

Whether the information bearing upon what may be called the "by-products" of seismological investigation will attract the attention of the International Association remains to be seen. Should it do so, then the British Government and the British investor may be compelled to go abroad to supply their wants. At present the work of the association is chiefly directed to that which is purely scientific, teleseismic records and their interpretation receiving the most attention. Since 1755 it has been recognised that a very large earthquake occurring in one country might give evidence of its existence in very distant regions by causing water in lakes or ponds to oscillate. In 1877 the oscillations of a bubble in a level at Pulkova were traced to an earthquake which destroyed Iquique. In 1884 cryptoseismic movement was frequently recorded in Japan. The late Dr. E. von Rebeur-Paschwitz also recorded these unfelt movements, which he traced to definite seismic centres.

In connection with the history of international seismological cooperation, it may be here mentioned that one of the first attempts to obtain the same was made in 1883 through his Excellency the late Sir Harry Parks and the Foreign Office of Japan. In 1895 attempts to repeat the same came from Japan and from Germany; the first successful attempt was that undertaken by the British Association in 1897, which now enjoys the cooperation of about fifty similarly equipped stations fairly evenly distributed over the land surfaces of the globe. This is an asset of considerable importance which we hope may continue to exist, and at the same time be able to assist the congress now sitting at The Hague.

THE IMMIGRATION OF SUMMER BIRDS.¹

THIS second report is very similar to that first issued, which was noticed in NATURE for September 6, 1906. It has been prepared on the same lines, and is open, to a large extent, to the same criticism, though we are glad to observe that the various immigration movements are now associated with the weather conditions prevailing in countries south of the shores of the Channel.

In the best interests of the inquiry, and at the risk of again being considered "somewhat hostile," the writer would once more urge the committee to confine its labours for several years to come to the publication of the observations received, and to refrain from drawing conclusions of any kind from its present limited knowledge. It serves no useful purpose to mention that particular species arrived on certain sections of the coast only, for in all but a few cases their supposed absence merely indicates that they escaped the notice of the observers, and nothing more; they have long been known as immigrants on the sections of the coast from which the committee has not, as yet, received information concerning them. The publication of observations of this nature has already misled some who have but little knowledge on the subject; and so also has the statement that the few species which arrived on the south-east coast held a north-westerly course and so reached Wales! No proof is offered in support of this very remarkable speculation, nor is any worthy the name

¹ Report on the Immigrations of Summer Residents in the Spring of 1906. By a Committee appointed by the British Ornithologists' Club. (London: Witherby and Co., 1907.) Price 6s.

afforded by the published data. In fact, the report generally bears evidence of having been drawn up on the supposition that the data are practically complete, whereas such perfection, or anything like it, is an absolute impossibility. The committee, and others interested in bird migration, would do well to remember that not one bird in a thousand that arrives on our shores, or which proceeds inland or coastwise, comes under the notice of competent observers, numerous though they be. This important consideration makes it imperative that some years must be devoted to the amassing and testing of materials ere the foundations of a trustworthy report can be laid.

The records collected by the committee are numerous, and, as interim reports seem to be desired, may be considered of sufficient interest and value to render them worthy of publication. There are a number of unfortunate slips in the report, some of which are so palpable that it seems strange that Mr. Bonhote's—the preparer's—colleagues on the committee did not detect them. W. E. C.

PRESERVATION OF MEMORIALS IN AMERICA.

AS an outcome of an article which appeared in these columns on June 6 (p. 130), entitled "Landscape Protection in Germany," the American Scenic and Historic Preservation Society has sent us some of its literature. This society was incorporated in 1895 by a special act of the Legislature of the State of New York, and holds, therefore, a semi-official position in that State. It has to report annually to the Legislature, and has a right to make recommendations regarding improvements to any of the municipalities.

The society's aims are summed up to a large extent in its name. It endeavours "to protect beautiful features of the natural landscape from disfigurement, either by physical alterations or by the erection of unsightly signs and structures, and to preserve from destruction remarkable geological formations or organic growths possessing an artistic or scientific value"; and it also endeavours "to save from obliteration names, places, and objects identified with local, State and national history; to erect suitable historical memorials where none exist."

In towns and villages it aims at procuring parks and open spaces, where necessary for the health and comfort of the inhabitants; it makes every effort to prevent the destruction of trees, and stimulates as much as possible a desire for local beautification in the minds of the public.

The funds depend on the members' subscriptions and voluntary contributions. The Government gives no financial support, but public money is occasionally placed at its disposal for acquiring or keeping in order properties for the public benefit. It is also empowered, according to its charter, "to receive real or personal property, in fee, or trust . . . and to administer it as a public trustee."

By means of meetings, free lectures, circulating historical pamphlets, and various educational means, the society endeavours to engrain in the people an appreciation of the beauties of nature, and also a patriotic interest in historical localities. Its efforts are becoming fully appreciated all over America, for its services are requisitioned in many different parts and in many different ways, the verifying of historical sites and putting up of tablets to commemorate noteworthy events being the most usual. America is much to be congratulated on having such a society, and especially one that is so active.

NO 1977, VOL. 76]

NOTES.

PROF. J. B. FARMER, F.R.S., has accepted the editorship of the *Gardeners' Chronicle* in succession to the late Dr. M. T. Masters, F.R.S.

THE inaugural address of the coming session of the Royal Scottish Geographical Society will be delivered by Lord Milner in the Synod Hall, Edinburgh, on Wednesday, November 13.

WE regret to see the announcement that Prof. L. F. Vernon Harcourt, emeritus professor of civil engineering at University College, London, died on Saturday, September 14, at sixty-eight years of age.

THE managers of the Metropolitan Asylums Board have approved of the erection at Belmont, Surrey, of new laboratories for the preparation of diphtheria anti-toxin and for bacteriological work. The total expenditure on the laboratories is not to exceed 6500l.

Symons's *Monthly Magazine*, the present issue of which is the five hundredth number of that interesting organ of meteorological opinion, announces that Dr. G. Hellmann has been appointed professor of meteorology in the University of Berlin and director of the Prussian Meteorological Service, in succession to the late Prof. von Bezold.

A TELEGRAM from Seattle states that a volcano in the Aleutian Islands became active on September 1 and 2, and that ash ejected from it fell upon twenty villages. A disturbance recorded by a seismograph at Washington on September 2 appears to have been due to this eruption.

THE Royal Geographical Society has received the following telegram referring to the Anglo-American Polar Expedition, signed by Captain Mikkelsen and Mr. Leffingwell:—"Sledge trip covering 500 miles crossed edge continental shelf twice soundings 50 miles off coast and beyond 630 metres no bottom ship lost next year continuation geology ethnography surveying and exploration Beaufort Sea."

THE Royal Commission on Mines has appointed Dr. A. E. Boycott to make an investigation with a view to determine whether there are any indications of the disease known as ankylostomiasis (miner's worm) in coal mines in Great Britain. Mr. John Cadman has also been appointed to make a series of observations and tests of mine air in connection with the question referred to the commission whether any steps should be taken to lay down a standard of ventilation in mines.

PROF. E. HECKEL, director of the Colonial Institute at Marseilles, has been awarded the gold medal founded by Dr. F. A. Flückiger, of Strassburg, in 1893, and awarded every five years, in recognition of steps taken to promote the advancement of scientific pharmacy, irrespective of nationality. Mr. E. M. Holmes, the curator of the museums of the Pharmaceutical Society of Great Britain, received the first medal, and the second was presented to Dr. C. Schmidt, of Marburg.

THE discovery of an interesting dene-hole on the south side of Windmill Hill, Gravesend, was described in the *Times* of September 14. It appears that a workman engaged in making excavations for building purposes discovered a shaft, rather less than 3 feet wide, which descended vertically to a depth of 55 feet from the surface, when it entered the chalk, and after piercing 3 feet of this rock opened out into a large artificial cavern. This cave was divided into two chambers by a roughly hewn